Type B Status

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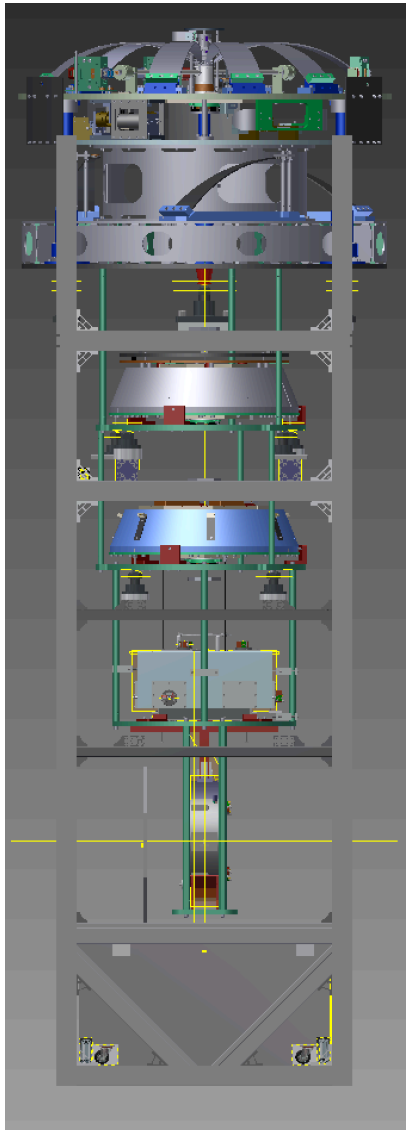
f2f Meeting

2/22/16

Overview

- Structure:
  - Preisolator with inverted pendulum stage and GAS filter
  - Standard (GAS) filter
  - Bottom (GAS)
  - Payload
    - Intermediate mass (IM) and Intermediate Recoil Mass (IRM)
    - Optic and Recoil Mass
- Two variants:
  - BS (1 unit; with custom payload for wider optic)
  - SR2, SR3, SRM (3 units; with payload as for PRx)



Design/Procurement Tasks

- BS parts mostly done, except:
  - Cable clamps (designed)
  - Sapphire prism (designed)
  - Dummy prism (designed)
  - Secondary prism (designed)
  - Dummy BS (designed)
  - EQ stops for face of BS (designed)
  - Flags (being redesigned)
- Springs for supporting optical bench below BS (designed)
- In-vacuum cables mostly made per D1503600 – needs careful check.
- Rack cables need planning
- Assembly frame – designed, ordered
- SR prisms need redesign, and RM may need matching modifications

Documentation Tasks

- Payload assembly procedure E1604817 - Fabian
  - based on E1503830 (payload), T1503907 (IM) for PR3 (Type Bp Short)
- Overall assembly/installation procedure T1604756 - Mark
  - Will draw on on T1604756 for PR3
  - Needs lots of work
- Schematic D1503600 – Mark
  - Needs rack cabling added.
- Schedule – Mark
  - Needs lots of work
  - Need to do a BS test hang first, starting in May, probably at least two months

Work Breakdown › Entry

#	Traits	Title	Given Work	Given Earliest Start	Resources	Predecessors
69		▼ **Assembly**		**Feb 19, 2016**	**Mirapro**	
70		▷ Construct assembly frame (less TBD crossbars) and optical table		May 2, 2016	Mirapro	
71		Install rails and trolleys	0.25 days			70
72		Install assembly frame crossbars for IM	0.25 days			71
73		Install ring, "red bars" and brackets below IM	0.25 days			72
74		Install, level and center IM	0.25 days			64; 73
75		Install winches	0.25 days			74
76		Mount mirror box with BS on trolley	0.25 days			75
77		Suspend BS	0.5 days			76
78		Setup optical lever	0.25 days			77
79		Align BS	0.25 days			78
80		Pre-assemble RM	1 day			79
81		Bring in RM back section on trolley	0.25 days			80
82		Attach front ring	0.25 days			81
83		Route OSEM cables from RM up to IM	0.25 days			82
84		Suspend RM	0.5 days			81
85		Check BS alignment	0.25 days			84
86		Install load gauge adapter and jacks	0.25 days			85
87		Weigh/trim payload assembly	0.25 days			86
88		Remove load gauge adapter	0.25 days			87
89		Install assembly frame crossbars for under BF	0.25 days			88
90		Install EQ structure parts up to ring under BF	0.25 days			89
91		Install pushers and jacks at ring under BF	0.25 days			90
92		Crane in BF	0.25 days			91
93		Remove BF cap with crane	0.25 days			92
94		Wire up BF picos, stepper, LVDT	0.25 days			93
95		Route IM cables through IRM top plate up to BF	0.25 days			94
96		Suspend IM top plate with rods from BF	0.25 days			95
97		Hook IM to BF	0.25 days			96
98		Remove security bar between IM and IRM	0.25 days			97
99		Raise BF with jacks, test payload weight match	0.5 days			98
100		Level payload	0.25 days			99
101		Build IRM around IM	1 day			100
102		Attach OSEMs	0.25 days			101
103		Route OSEM cabling up to BF	0.25 days			102
104		Crane in BF cap	0.25 days			103
105		Connect payload cables to BF cap	0.25 days			104
106		Install load gauge adapter	0.25 days			105
107		Weigh/trim/balance BF +payload	0.25 days			106
108		Remove load gauge adapter	0.25 days			107
109		Install crossbars for under SF	0.25 days			108
110		Install EQ stop parts up to ring under SF	0.25 days			109
111		Install jacks supporting ring under SF	0.25 days			110
112		Install jacks and pushers at ring under SF	0.25 days			111
113		Crane in SF	0.25 days			112
114		Remove SF cap with crane	0.25 days			113
115		Wire up SF stepper, LVDT	0.25 days			114
116		Replace SF cap with crane	0.25 days			115
117		Route cables from BF up to SF	1 day			116
118		Hook BF+payload to SF and raise SF to suspend BF+payload	0.25 days			117
119		Install load gauge adapter	0.25 days			118
120		Weigh/trim/balance SF+BF +payload	0.5 days			119
121		Remove load gauge adapter	0.25 days			120
122		Place damper ring with crane	0.25 days			121
123		Crane in PI	1 day			122
124		Suspend SF damper ring	0.25 days			123
125		Route cables up to PI	1 day			124
126		Install geophones	0.25 days			125
127		Wire up LVDTs, geophones, picos, steppers	1 day			126
128		Place PI ballast	1 day			127
129		Hook SF+BF+payload and lower SF to suspend SF +BF+payload	0.25 days			128
130		Level, center, tune PI	1 day			129